

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 1577 PCT	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/DE2005/000004	International filing date ( <i>day/month/year</i> ) 05 January 2005 (05.01.2005)	Priority date ( <i>day/month/year</i> ) 08 January 2004 (08.01.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant ZF FRIEDRICHSHAFEN AG		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 6 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Date of issuance of this report 18 October 2006 (18.10.2006)</td> </tr> <tr> <td style="padding: 2px;">Authorized officer  <div style="text-align: center; font-weight: bold;">Ellen Moyse</div></td> </tr> <tr> <td style="padding: 2px;">e-mail: pt05@wipo.int</td> </tr> </table>	Date of issuance of this report 18 October 2006 (18.10.2006)	Authorized officer  <div style="text-align: center; font-weight: bold;">Ellen Moyse</div>	e-mail: pt05@wipo.int
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

**TRANSLATION**

**PCT**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	<b>See Form PCT/ISA/210 (sheet 2)</b>
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Applicant's or agent's file reference <b>1577 PCT</b>	FOR FURTHER ACTION See paragraph 2 below
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International application No. <b>PCT/DE2005/000004</b>	International filing date (day/month/year) <b>05.01.2005</b>	Priority date (day/month/year) <b>08.01.2004</b>
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International Patent Classification (IPC) or both national classification and IPC  
**F16C11/06**

Applicant  
**ZF FRIEDRICHSHAFEN AG**

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input checked="" type="checkbox"/> | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/DE2005/000004

Box No. I      Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>2-5, 12, 13</u>	YES
	Claims	<u>1, 6, 7, 11</u>	NO
Inventive step (IS)	Claims	<u>2-5, 12, 13</u>	YES
	Claims	<u>8-10</u>	NO
Industrial applicability (IA)	Claims	<u>1-13</u>	YES
	Claims	<u></u>	NO

2. Citations and explanations:

Reference is made to the following documents:

**D1: US 6 357 956 B1** (ZEBOLSKY MICHAEL L ET AL) 19 March  
2002 (2002-03-19)

**CLAIM 1**

- 2.1 The present application fails to comply with the requirements of PCT Article 33(1) since the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2).
- 2.2 Document D1 (see column 4, line 13 to column 5, line 21 and figures 3-5) discloses (the references in parentheses refer to this document):  
A ball and socket joint 26 that is inserted in the area of the chassis 10 of vehicles with a ball and socket joint housing 36 having a joint opening, with a ball pivot 24 arranged in the ball joint housing 36 extending through the joint opening, onto which a shaft 25 is formed, with a support ring 50 arranged on the shaft 25 of the ball pivot 24, and a sealing element 54, 55 that is arranged between the support ring 50 and a connection component 22 enclosing the shaft 25 of the ball

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/DE2005/000004

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

pivot 24, wherein the sealing element is designed as an elastic and/or plastically deformable profile body (O-ring 54 or 55), whose effective cross-section not subject to force is delimited by a continuous, curved contour (circular shape) that is subject to deformation when assembled (necessary to achieve a sealing effect), as a result of which at least one section of the contour lies on the adjacent, sealing areas of 22, 23, 25, 50, 50a.

**CLAIMS 2 to 13**

3.1 Claims 6, 7 and 9 to 11 do not contain any features, which in combination with the features of any claims to which they refer, meet the requirements of the PCT with regard to novelty and inventive step. Reference is made to the following prior art:

Claim 6 concerns an obvious method for achieving a seal also found in D1;

Claim 7, D1, figures 5A and 5B, arrangement on support ring 50;

Claim 8: suggested in D1, column 5, lines 12-21;

Claims 9, 10 relate to an obvious step during assembly;

Claim 11: D1, figures 5A and 5B.

3.2 The combination of features contained in dependent claims 2 to 5, 12 and 13 are neither known from the existing prior art, nor are they suggested by it.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2005/000004

Box No. VII      Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

4.    The features of the preamble of claim 1 are not provided with reference signs in parentheses (PCT Rule 6.2b) .